

A mass migration of Pelicans in Israel

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When motoring to Beersheba and passing through Ramla just south of Lod on 20th April, 1961, our attention was attracted to a distant flight of large black and white birds which we at first thought were Storks, *Ciconia ciconia ciconia* (Linnaeus).

However, as they drew nearer we at once saw that we were witnessing an unusual mass migration of pelicans. As far as we could tell, the birds were all White Pelican, *Pelecanus onocrotalus* Linnaeus, and they were flying due south-east in strict formation in V's and long sinuous lines, flying on fixed pinions at a height of from about 1,500 to 3,000 ft. and losing altitude steadily. The birds passed over Ramla to a point about a quarter of a mile to the south-east as apparently conditions were unfavourable for continuing their journey, for here the formations broke up and the vast cohort, in all we judged about 3,000 birds, milled around in a huge circle, some flying clockwise, others anti-clockwise, all intermingling in a vast cloud of pelican.

We were unfortunately unable to stop to see their subsequent behaviour. We thought that the birds were probably making their way south-east to the Persian Gulf, one of the breeding stations for this species.

There does not seem to be much known about such mass movements, but Meinertzhagen¹ records seeing a mass migration of "many hundreds of birds—over Jerusalem and Beisan on 19th April, birds flying in ragged V-formation at about 3,000 ft. and passing north". He continues "There must have been two distinct movements, for they passed Jerusalem at 9.30 a.m. and Beisan at 2 p.m."

The different directions of these two mass movements of the pelican, both in spring, suggests of course that those observed by Meinertzhagen were, in all probability, proceeding to the Black Sea, Caspian and Aral Sea areas where there are extensive breeding colonies of the species.

¹ Meinertzhagen, R., 1954. *The Birds of Arabia*, Addenda, No. 33, p. 429: see p. 595.

A new Pipit from Angola

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In her recent excellent review of the pipits, Mrs. Hall (1961, Bull. Brit. Mus. (N.H.), Zool., 7: 261) has shown that the race of *Anthus similis* inhabiting the plateau region of central Angola is *schoutedeni*, characterized by its short bill and the comparatively long streak of white on the penultimate rectrix. A series of 14 ♂♂ and 9 ♀♀ from Angola in the Chicago Natural History Museum and American Museum of Natural History show the characters ascribed to *schoutedeni*. However, three specimens from the summit of Mt. Moco in the highlands of the Huambo District differ strikingly from the populations of *schoutedeni* found on the lower slopes of the same mountain. They are darker and larger, with a disproportionately longer tarsus.

Since this distinct population occurs within a few miles of *schoutedeni* without any sign of intergradation, it seems to behave biologically as a

distinct species, although in all characters it is a typical *similis* representative. The two forms appear to be kept separate by ecological preferences, *schoutedeni* for clearings in *Brachystegia* woodland, and the montane form for the grassy slopes of the summit. However, even though the montane form appears specifically distinct from *schoutedeni*, it approaches *hararensis* of north-east Africa in size and differs from that form only in minor size and colour differences. In fact the most aberrant form of all the African races of *similis* is *schoutedeni*, (Hall, *l.c.*) and were it not for the fact that *schoutedeni* intergrades with *nyassae* it would be simpler to consider it the separate species. Considering the uncertain relationships within the species I prefer to keep this new race in its natural ally *similis*, but I put the specific name in parentheses to show that it behaves as a species with the nearest geographical representative. I therefore, name it:

Anthus (similis) moco subsp. nov.

Type: adult ♂ from the summit of Mt. Moco, Huambo, Angola. Collected 10th October 1954 by Gerd Heinrich, collector's number 15975. Chicago Natural History Museum number 225300.

Description: nearest to *hararensis* of east and north-east Africa (see White 1957, Bull. Brit. Orn. Club. 77: 30) in general size and colour, but differs from that form in having heavier streaks on the breast, and average longer tarsus and a shorter bill. Differs from the adjacent *schoutedeni* in being darker and more heavily streaked on the breast, and in being larger in all dimensions, with a disproportionately longer tarsus. Agrees with *leucocraspedon* of Damaraland only in tarsal length, differing in shorter bill and tail and slightly longer wing and in being heavily streaked while *leucocraspedon* is the least streaked of all. In the much reduced white on the penultimate rectrix it agrees with all races of *similis* except *schoutedeni* which has a long thin triangle.

Measurement of type: wing 100; tail 72; bill 17.5; tarsus 28 mm.

Range: confined to grassy slopes on the summit of Mt. Moco.

Remarks: Comparative measurements of our material of the various races are:

		<i>Wing</i>	<i>Tail</i>	<i>Culmen</i>	<i>Tarsus</i>
<i>hararensis</i>	6 ♂♂	94-104 (98.5)	72-83 (76)	18-20 (19.0)	25-28 (26.3)
	9 ♀♀	87-94 (90.7)	67-75 (71.1)	18.5-20 (19.5)	24-27 (25.2)
<i>schoutedeni</i>	14 ♂♂	90-98 (94.1)	67-74 (69.0)	15-17.5 (16.6)	23-25 (24.0)
	9 ♀♀	86-90 (88.9)	62-68 (65.6)	16-17 (16.2)	22-25 (23.2)
<i>moco</i>	2 ♂♂	100, 103	72, 75	17.5, 18	28, 28
	1 ♀	95	70	16.5	27.5
<i>leucocraspedon</i>	4 ♂♂	91-101 (97.0)	73-79 (76.8)	20-21 (20.8)	26-28 (27.1)

In size *moco* is characterized by its long tarsus and comparatively short bill, the latter relating it to the adjacent *schoutedeni*.

Mrs. Hall examined a specimen of *moco*, but only after her paper was in press. She made a number of helpful suggestions for which I am very grateful, but agreed that its relationships are beyond the reach of our trinomial nomenclature.

The three specimens of *moco* are those listed by Heinrich (1958, Jour. f. Orn., 99: 340) as *A. richardi bocagei* from the summit of Mt. Moco.